

NIH.

record

FEDERAL SECURITY AGENCY

Vol. IV, No. 7 - 7 April 1952

PUBLIC HEALTH SERVICE
NATIONAL INSTITUTES OF HEALTH

PLANS UNDER WAY TO SURVEY NIH

The rapid expansion of NIH brings with it a number of organizational, communication and morale problems.

Dr. Rensis Likert, Director of the Institute for Social Research of the University of Michigan, has been asked to formulate plans for a survey of these problems at NIH. His Institute has more demands than it can meet from industrial concerns and governmental agencies for studies of this sort. NIH will decide after the study plan is completed in July whether to proceed with the survey itself.

Dr. Donald C. Pelz, Mr. Glen D. Mellinger, and Mr. Robert C. Davis of the Institute for Social Research have visited here several times to get an over-all picture of the structure and functions of NIH. They have talked with approximately 75 people -- laboratory and branch chiefs, institute directors, section and unit chiefs, scientific directors, laboratory assistants, supervisors and employees in various service groups.

The purpose of these interviews is to learn how employees with different jobs feel about their working relationships, the adequacy and efficiency of administrative services, the recognition for work done, and any other matters they might wish to discuss. From these interviews, background information will be obtained so that a set of study objectives and a study procedure may be formulated.

If you are fortunate enough to be interviewed during the next few months, don't hesitate to speak frankly. Give Dr. Likert's staff ideas you have about problems you feel should be studied. Your interview is confidential and your opinions will be known only to Dr. Likert's group and yourself.

TWO NIH EMPLOYEES RECEIVE AWARDS



James Phillips presents award to Melvin Bryant (left) and Willard Piggott. A. F. Siepert watches the ceremony.

NIH RESEARCH IS FEATURED ON TV

"The Best-Laid Schemes," featuring research on rickettsialpox, was presented by the Philco Television Playhouse on Sunday, March 25. Dr. Robert J. Huebner, NMI, appeared at the end of the show with Mr. Charles Pomerantz, an exterminator who assisted in finding the vector for this disease.

The first outbreak occurred in Kew Gardens, an apartment development in Queens, N. Y., in 1946. In his search for insects that might be carrying the disease, Mr. Pomerantz found mites on mice around the apartments.

The mites were later found to be responsible for spreading the disease to humans. Dr. Huebner, with the aid of Dr. William L. Jellison and Dr. Charles Armstrong, isolated the causative agent from a patient and cultivated it in the yolk sacs of fertile eggs.

A new method for the preparation of egg media won a cash award for two NIH employees. In ceremonies held March 18, Willard Piggott, NMI, and Melvin W. Bryant, LAB, received \$40 each for their system of removing air from egg media.

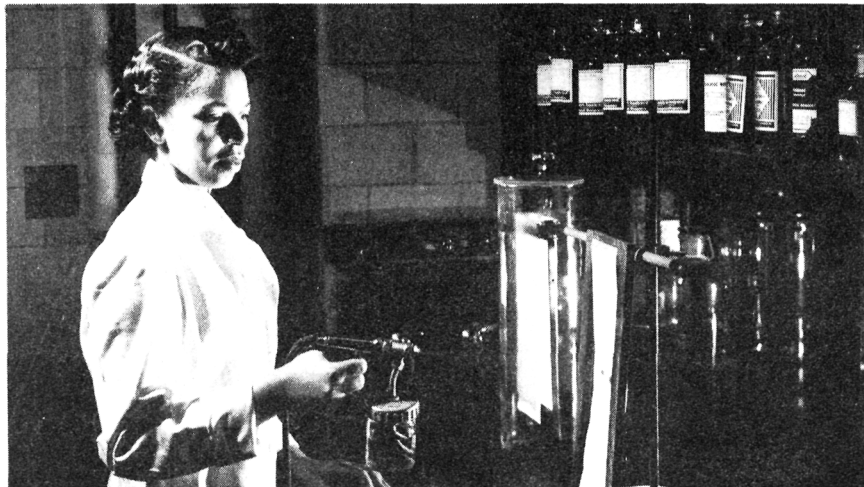
Mr. Piggott and Mr. Bryant cooperated over a period of years to improve the preparation of egg media. Formerly, 30 to 40 percent of egg media contained air bubbles and represented a great loss of material and labor.

The new system--utilizing a series of desiccators--extracts air from the egg mass and eliminates breakage during inspissation and sterilization.

The awards were presented by Mr. James Phillips, Administrative Officer of the Laboratory Aids Branch. Attending the ceremony were Dr. Byron Olson, Mr. W. R. Schroeder, Mr. A. F. Siepert, and Miss Lucy Reardon.

Detecting Cortisone Precursors

No. 70 of a Series



Mrs. Alma Hayden sprays chromatogram with reagent.

In the commercial production of cortisone, starting materials must yield steroids in which oxygen occurs or can be readily shifted to a certain position in the molecule. At present, desoxycholic acid from ox bile is used.

Oxygen occurs in this substance in position 12 and is shifted to the desired position 11. The supply of desoxycholic acid, however, depends upon the livestock industry, and independent sources of starting material would be preferable.

In NIAMD's Section on Steroids, directed by Dr. Erich Mosettig, a laboratory headed by Dr. Erich Heftmann is screening suitable starting materials for cortisone and other hormones. A recent project, in which the Eastern Regional Laboratory of the Department of Agriculture collaborates, has resulted in the development of a screening procedure utilizing paper chromatography.

The technique is applied to the identification of cardiac glycosides such as sarmentogenin, which is obtained from African strophanthus seeds. Other plants--American, Mexican, and African--are analyzed for steroid sapogenins, such as hecogenin. Sarmentogenin and hecogenin are steroids containing oxygen in positions 11 and 12, respectively. Both are suitable cortisone precursors.

Paper chromatography was found by this laboratory to be a rapid,

efficient method for qualitative screening. Simply stated, the technique consists in placing a spot of the substance to be tested on porous paper, soaking an edge of the paper in a solvent (under the airtight jar shown above), and thus distributing the solute in a characteristic manner. The resulting pattern, indicating the identity of the substance, is revealed by spraying with a reagent.

When satisfactory source materials are detected, conventional chemical tests are applied to determine the quantity of steroid present. The screening technique, when perfected, will be turned over to the Department of Agriculture for routine application. Plants found to contain sufficient amounts of cortisone precursors will be cultivated by the Department, in the United States if practicable.

The laboratory is also conducting tests for steroids in body fluids such as urine. In this work, the laboratory cooperates closely with NIAMD's Section on Endocrinology. The primary objective is to develop methods for elucidating the mechanism of steroid hormone action, as in the treatment of arthritis with cortisone or compound F. Again, paper chromatography is useful for the qualitative determination of steroid substances, and conventional chemical techniques are used for quantitative and confirmatory analyses.

Here and There

Manufacturer's Exhibit

The second annual exhibit of research equipment will be held at NIH, May 20-22. The Purchase and Supply Branch is currently making plans for the display to be set up on the first floor of Building 13.

Radio Talk

"Fluoridation of Domestic Water Supplies" was the subject of a discussion by Drs. F. J. McClure and Isadore Zipkin, of NIDR, on Station WGMS April 6. The program was sponsored by the Chemical Society of Washington.

Red Cross Drive

Chairman Lyman Moore of NIMH announced that \$2,450 was collected by NIH keymen during the current Red Cross Drive. A total of 948 employees contributed.

Mental Health TV Shows

Dr. Robert H. Felix, Director of NIMH, will appear on the NBC-TV program, "The Road to Mental Health" April 14 at 2:30 p.m. on WNBW. The program is part of the American Inventory series, a group of educational TV shows sponsored by the Sloan Foundation.

Dr. Felix spoke following a dramatization of the work being done at mental health clinics throughout the Nation.

European Trip

Dr. David B. Scott, Acting Chief of NIDR's Laboratory of Functional Morphology, left April 5 for a lecture trip in Europe. During his six weeks abroad, Dr. Scott will visit Norway, Denmark, Finland, Sweden, and England, sponsored by the dental associations of these countries.

Lecture Series

The fourth lecture in the series on instrumentation will be delivered Tuesday, April 15, in Wilson Hall at 4 P.M. "Phase Microscopy" will be discussed by Dr. Helen Jupnik, Physicist, and Dr. Harold Osterberg, Head of the Physical Optics Section, both of the American Optical Company.

NIH RECORD published by Scientific Reports Branch, National Institutes of Health -- OLiver 1400, Ext. 2171.

R & W ASSOCIATION REVEALS SPRING PLANS

NIH's Recreation and Welfare Association plans many fun-filled days this springtime. Sports, dances, and picnics were promised members by Dr. Gordon Seger, President of the Association, at the March meeting of the Board of Directors.

The Sports Committee has been allocated \$250 for the purchase of badminton, golf, fishing, tennis and horseshoe equipment, to be made available to members for evenings and weekends. The NIH baseball team has approximately \$400 which is to be used for softball equipment.

A "circus dance"--canopy and all--is scheduled for late April in Wilson Hall. Although now in the planning stage, dance details "leaked" to the Record smack of floor shows, songs, skits, tables and refreshments.

New 1952 discount books are now off the presses, listing 10-40% discounts for members on items ranging from furniture, radios, TV, baby apparel and luggage, to auto supplies, optical services, kitchen equipment, paint, and electrical appliances.

Early returns in the 1952 Association membership drive indicate last year's record total will be exceeded. Julia Rowady, chairman of the Membership Committee, reports that 550 employees have joined the association. Building representatives may be contacted at any time for information and membership.

Candy sales recently held in conjunction with the membership drive totaled \$200, according to Joe Murphy, chairman of the Concessions Committee. The candy, sold at cost, was offered at a 33 1/3% reduction as a service of the Association.

Miss Mary Bertha, chairman of the Welfare Committee, reported that 50 loans, totaling \$1,167, were made during 1951 by the Association's Emergency Welfare Loan Fund. Loans ranged from \$5 to \$100. Eligibility for loans from this emergency fund is not limited to association members. No bad debts have occurred to date, even though the only requirement is an I.O.U. for payment within 30 days.

NIH Spotlight



George L. Barnard

A man who can search through a pile of junk and salvage many usable items is a rare asset in government today. George L. Barnard, electronics technician in Dr. Wade H. Marshall's Laboratory in NIMH, is just such a man.

Born in Connecticut in 1921, he was raised on a Massachusetts farm. In 1939 he enlisted in the Navy for a six-year hitch. During World War II, George advanced to Aviation Chief Fire Controlman, frequently working on automatic flight control equipment. He also served as a bombardier instructor. In 1946 Mr. Barnard left the Navy and came to Washington to attend the Capitol Radio Engineering Institute. He is now taking a course in television engineering, which he will complete next year. George finds that electronics knowhow in circuit wiring, such as television uses, can be applied to his work here.

George came to NIMH in 1947 and he has worked with Dr. Marshall from the outset. His main achievement has been in helping to design and build the electroencephalograph (EEG) machine and associated instruments which Dr. Marshall and his associates use in their experiments on the central nervous system, especially in regard to epilepsy. With this machine they are able to record the electrical signs of activity in the brains of animals. Construction of this machine was begun in June 1947, and it has undergone many modifications as the need for them arises. Since regular commercial models of many of the machines used in research laboratories are limited in

PHS OFFICERS WIVES TO SPONSOR BENEFIT SHOW

The Officers Wives Club of PHS is sponsoring a benefit performance of "The Curious Savage," a Montgomery County Players' production. It will be presented April 21 at 8:30 p.m. in the Leland Junior High School Auditorium, Bethesda.

Proceeds from the play will go to the Welfare Fund of the Wives Club. Tickets are \$1.20 and may be purchased from Mrs. Dorothy Amos, Miss Peggy Badger, Mrs. Nellie Brake, Mrs. Philomena Ivy, Mrs. Evelyn Miller, Mrs. Catherine Porter, Mrs. Sally Scott, and Mrs. Louisa Thompson.

use, it is quite common to build a machine to suit a particular type of experimentation.

George describes himself as a gadgeteer, and feels that Dr. Marshall values him most in this capacity, because there is often the need to quickly fashion a new electronic circuit or a new instrument holder. Like many people who like to invent things, George never throws anything away. From the junk pile formerly on the site of the Clinical Center, George found a four-channel EEG machine which had been discarded. After he repaired it, Dr. Marshall used it for over two years. Just last summer George found a use for the ignition coil from a model T Ford he drove years ago. The ignition coil was used to produce a harmless shock in an attempt to induce signs of epilepsy in normal monkeys. However, George does not spend all his time salvaging junk. He has designed and built a long list of special electronic instruments from new parts, and some of these problems required high grade engineering.

During the war, George met his wife. They have two boys, aged 7 and 2, and make their home near Rockville, Md.

George maintains that he enjoys working at NIH primarily because of the splendid cooperation he gets from other labs and shops. You gather, as he talks to you, that Dr. Marshall ranks high on the list of reasons why George would like to remain at NIH for a long time.

TELEPHONE WIRES HUM AT NIH



Mrs. Cooke (left) and telephone operators in action.

The "voice with a smile" might well be applied to any of NIH's skilled telephone operators. Headed by genial Mrs. Helen Cooke, these four women handle approximately 3,000 telephone calls per day. Although many of the calls are fairly routine, some require real perseverance and no little detective work. Mrs. Cooke or "Cookie" recalls that one time a very important call was placed to a scientist out West. It turned out that he had left by auto for another city, but with the help of the AAA he was tracked down and received the call en route.

The operators in the Telephone Unit alternate in handling long distance calls. One operator always handles information calls. Incidentally, the Telephone Unit keeps an up-to-date record of telephone extensions and locations of all NIH employees.

At the present time there are approximately 1,050 telephones at NIH. These are maintained by a full-time serviceman stationed here by the Chesapeake and Potomac Telephone Company.

When the Clinical Center is finished, the Telephone Unit will move there from their present quarters in Building 3. At that time, 24-hour service will be given, and the unit staff will grow considerably. This will be a far cry from that day in 1938 when Cookie came to NIH as its only telephone operator.

FIRST DYER LECTURE PROCEEDINGS PUBLISHED

The publication of the first R. E. Dyer Lecture was recently completed. The lecture, given June 21, 1951, was the first of a series honoring Dr. Rolla E. Dyer, who was retiring as Director of NIH. Dr. George W. Beadle, of California Institute of Technology, was selected to give the lecture, "Genetic Control of Metabolism."

A copy of the lecture proceedings was sent to each person who contributed to the Dyer Lectureship Fund, established in 1950 by his friends and colleagues in medical science. Approximately 525 copies have been sent out by the Editorial Section, SRB.

Other copies have been distributed routinely to medical and public libraries and editors of medical journals.

More copies are available from the Editorial Section, Room 216, Building 1.

Although the Telephone Unit's job is a difficult and demanding one, Cookie says it is eased by the splendid cooperation of NIH employees. She reflects the feelings of the entire unit when she says, "We just couldn't ask to work with a finer group of people."

DISABLING INJURIES

NIH DISABLING INJURY RECORD		
Institute	Disabling Injuries 1952 ^{1/} (Jan. - Feb.)	Disabling Injuries 1951
NIDR	0	0
NIMH	0	0
L. A. B.	0	1
DRG	0	1
NHI	0	1
NCI	0	3
NMI	1	3
NIAMD	1	4
OD	1	6
BLDGS.	2	8
NIH	5	27

^{1/} Where disability extends beyond day of injury.

Among the disabling injuries in 1951, falls took the greatest toll--11. Lifting or handling heavy equipment resulted in 7 sprains, strains, or hernias. Eye injuries, accounting for 4 disablements, resulted from splashing acid, alkali bursting from confined graduate, lead splinter, and other foreign objects. Five miscellaneous injuries occurred from explosions, broken glassware, and improper operation of machinery.

The following preventable accidents have occurred this year: benzene-soaked waste placed in regular trash receptacle flashed and burned incinerator operator's face; an attendant was severely cut when a water-filled carboy bottle broke as he carried it; and a cleaner wrenched his back when he lifted a floor buffer.

FOREIGN VISITORS

Three noted scientists from Britain and Switzerland delivered lectures at NIH recently.

The relationship of the Medical Research Council of Great Britain to hospitals and educational institutions in the United Kingdom was discussed by Dr. F. H. K. Green, Principal Medical Officer of the Council. He spoke before a large audience in Wilson Hall on April 2.

"Design for a Brain" was the subject of a talk given March 25 by Dr. W. Ross Ashby, Director of Research, Barnwood House, Gloucester, England.

On March 24, Dr. Marcel Monnier, of the Laboratory of Applied Neurophysics, in Geneva, Switzerland, spoke on "Consciousness and the Problem of Psychophysical Parallelism."